



Total Maximum Daily Load Information Sheet

South Blackbird Creek

Water Body ID: 0655

Water Body Segment at a Glance:

County: Putnam
Nearby City: Unionville
Length: 13 miles
Pollutant: Ammonia, un-ionized
Source: Unknown



State Map Showing Location of Watershed

Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. South Blackbird Creek is impaired due to exceedances of water quality criteria for the protection of aquatic life.

Designated uses of South Blackbird Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Uses that are impaired

- Warm Water Habitat (WWH)

Criteria that apply

- Chronic criteria for ammonia vary with water temperature and pH and are provided in Table B3 of the Water Quality Standards at 10 CSR 20-7.031. At typical temperatures and pH values, a

summer ammonia criterion would be 1.5 mg/L with a winter criterion of 3.1 mg/L. Acute criteria are provided in Table B1. The acute criterion at 7.8 pH for cool and warm water habitats is 12.1 mg/L.

Assessment and water quality data

Ammonia is a common by-product of wastewater treatment and, under certain conditions, can be toxic to aquatic life. However, there are no known sources of wastewater along the impaired segment, so the source of the ammonia is unknown. A water body is judged to be impaired by ammonia if the chronic or acute criteria are exceeded on more than one occasion during the last three years for which data is available. In South Blackbird Creek, there were three exceedences of the chronic standard in last three years of data.

Ammonia as Nitrogen, or NH₃N, Data for South Blackbird Creek

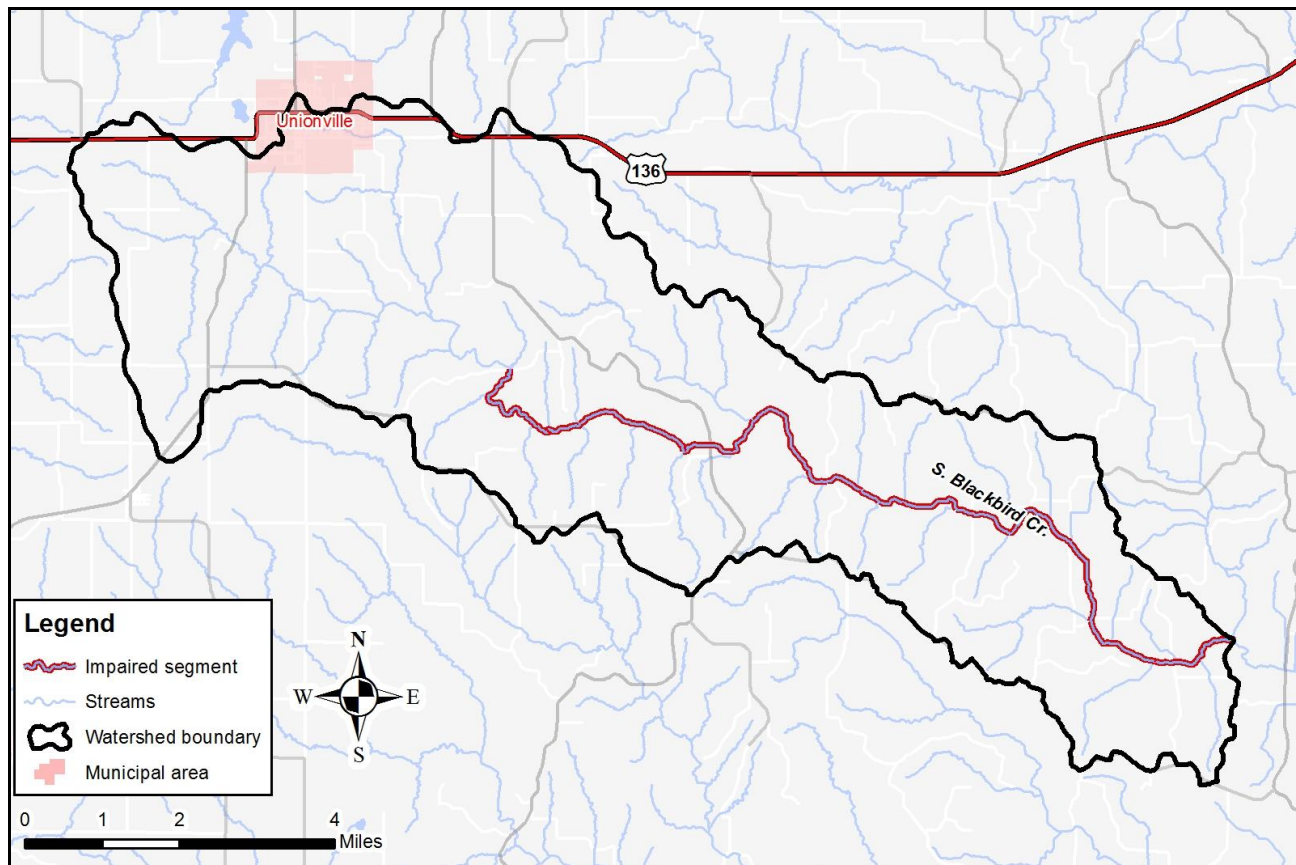
Site	Date	°C	pH	NH₃N
2	12/10/02	2	7.9	1.5
2	1/14/03	0	8.2	3.89
2	3/18/03	17	8.5	9.14
2	3/12/03		7.7	2.74
1	7/14/05	20	7.7	1.26
1	11/9/05	8.7	8.1	0.67
1	5/26/06	19.8	7.6	2.61
3	7/14/05	21.9	7.7	0.5
3	11/9/05	10.3	7.7	0.03
3	2/17/06	0.7	7.9	5.08
3	5/26/06	20.3	7.9	0.12
4	7/14/05	23.4	8	0.01499
4	11/9/05	11.2	7.8	0.09
4	5/26/06	23.9	8	0.01499

Shaded cells indicate exceedance

TMDL for South Blackbird Creek

The TMDL for South Blackbird Creek will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, this TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

Map of the South Blackbird Creek watershed



For more information call or write:

Department of Natural Resources
Water Protection Program – Watershed Protection Section
P.O. Box 176
Jefferson City, MO 65102-0176
Ph: 1-800-361-4827 or 573-751-1300
Fax: 573-526-6802
Email: TMDL@dnr.mo.gov
Program Home Page: dnr.mo.gov/env/wpp/index.html